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APR 21/45  
PFW

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In the application of** : A H N Roestenburg et al  
**Serial No.** : 09/693,132  
**Filed** : October 20, 2000  
**For** : System, Apparatus and Method for  
Personalising Web Content  
**Examiner** : T. Duong  
**Art Unit** : 2145  
**Customer number** : 23644

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450," on December 14, 2005

Name of person signing Minnie Wilson

Signature Minnie Wilson

**APPEAL BRIEF**

Honorable Director of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

This appeal is from the Examiner's final Office Action mailed July 27<sup>th</sup>, 2005 in which all pending claims (namely Claims 1 to 23, 27 to 33 and 55 to 85) were rejected. A timely Notice of Appeal was filed with the required fee. The Pre-Appeal Brief decision has led to this Brief.

This brief is being filed along with the required \$500 fee pursuant to 37 C. F. R. § 41.20(b)(2).

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(i) Real Party in Interest

This application is assigned to Nortel Networks Limited, who is the real party in interest.

(ii) Related Appeals and Interferences

There are no related appeals or interferences.

(iii) Status of Claims

This application was filed with claims 1 to 67. In the responses of March 5, 2004, July 16, 2004 and April 26, 2005, claims 24 to 26 and 34 to 54 were cancelled, claims 1 to 6, 8 to 10, 12 to 17, 19 to 21, 23, 27, 28, 30 to 32, 55 to 60 and 62 to 67 were amended and claims 68 to 85 were added. During amendment, the independent claims have each been amended to recite features patentably distinguishing the invention over the prior art of record. Claims 1 to 23, 27 to 33 and 55 to 85 are those claims being appealed, and are set forth in the Claims Appendix.

(iv) Status of Amendments

No response was filed to the final Office Action mailed July 27, 2005, so the claims now pending have all been considered by the Examiner and finally rejected. It is the rejection of these claims as set forth in the final Office Action mailed July 27, 2005 that is appealed.

#### (v) Summary of Claimed Subject Matter

The invention as presently claimed is concerned with a system, apparatus and method for personalising web content of the type delivered from a content providing server, for example a web server, to a client equipment unit, for example a personal computer, over a communication network.

Aspects of the invention relate to a content personalization system for a communications network. The content personalization system comprises a client equipment unit such as a personal computer (PC) capable of communicating with a content providing server such as a web server for providing content. It also comprises a data manipulation server (proxy server) disposed in-line between the client equipment unit and the content providing server but remote from the client equipment unit. The data manipulation server may be provided by an Internet Service Provider (ISP) through which the client equipment unit connects to the content providing server via a network such as the Internet, for example. The data manipulation server is coupled to a data store arranged to persistently store personal data relating to a user of the client equipment unit. The content personalization system is arranged such that the data manipulation server intercepts and modifies data communicated between the client equipment unit and the content providing server in dependence on the personal data relating to the user stored in the data store.

In some embodiments, modification may be performed in response to the personal data manipulation server intercepting a request message for obtaining the content, the request message being transmitted from the client equipment unit and addressed to the content providing server. The data manipulation server may modify the request message in dependence on some of the personal data relating to the user such that the modified request message causes the content providing server to

provide content that is personalised for the user of the client equipment unit rather than generic content that takes no account of personal data relating to the user.

In one example, the request message is modified to include a preferred language of the user whereby the content providing server on receiving the modified request message delivers suitably arranged content such as a web page in accordance with the user's preferred language. This can be particularly advantageous where the request message is also modified, for example, to indicate a location of the user such that the content providing server provides content that is suitably arranged in accordance with both the user's preferred language and the user's location. In the example of a content providing server comprising a car hire web site, a user located in the United Kingdom but having a preferred language such as Dutch would be delivered content consistent with the car hire services available in the UK through the web site but scripted in the Dutch language rather than English which one would ordinarily expect.

In other embodiments, the data manipulation server is adapted to intercept and modify content data being communicated from the content providing server to the client equipment unit, the content data being communicated in response to a request message received at the content providing server from the client equipment unit, the modification of the content being delivered to the user being performed in dependence on the personal data relating to the user stored in the data store. In this arrangement, the data manipulation (proxy) server intercepts generic content being provided by the content providing server in response to a user request for content, retrieves from the storage device personal data relating to the user corresponding to attributes contained in the generic content and substitutes or modifies the attributes disposed amongst the generic content with the personal information retrieved from the storage device. Once modified, the generic content now personalised for the user is forwarded to the client equipment unit for presentation to the user.

The storage device associated with the data manipulation server persistently stores data comprising attributes (personal data) relating to the user of the client equipment unit (PC) such as, for example, but not limited to Common name, Surname, User password, Business telephone number, Preferred language, Billing address, Country code, Credit card number, Credit card expiry, Special condition/disability, location, domicile, etc, among others. Data being communicated between the client equipment unit and the content providing server are modified in dependence on some of such personal data.

(vi) Grounds of Rejection To Be Reviewed on Appeal

There are two rejections at issue:

1. the rejection of claims 1, 4 to 10, 12, 15 to 21, 23, 27 to 32, 55 and 58 to 85 under 35 U.S.C. 102(e) as being anticipated by US Patent Number 6725526 to Challenger et al; and
2. the rejection of claims 2, 3, 11, 13, 14, 22, 33, 56 and 57 under 35 U.S. C. 103(a) as being unpatentable over US Patent Number 6725526 to Challenger in view of US Patent Number 6330561 to Cohen et al.

## (vii) Argument

### Ground 1:

Challenger teaches a client-server system 100 including at least one client 102, at least one server 104 and at least one cache 106. The client 102 obtains information from the server 104. In accessing the client 102, the server 104 may incur significant latency and/or overhead (e.g. network overhead). To reduce the overhead for such accesses, information from the server 104 may be stored in the cache 106. The client would then be able to obtain cached information from the server with considerably less overhead (column 5, lines 34 to 46). Thus far, Challenger teaches what amounts to a conventional arrangement of a client (device) 102 such as a personal computer (PC), a (content providing) server 104 and a cache 106 for temporarily storing content from the server 104 requested by the client 102. Where Challenger differs from the conventional arrangement is in the ability of the cache 106 to customize cached information sent to the client 102 from the cache 106 (column 5, lines 46 to 48). In other words, Challenger teaches a cache that is arranged to customize for a user of the client device 102 content previously requested by the user from the server 104 that has been temporarily stored in the cache. It should be noted that Challenger is consistent throughout in its use of the term "cache". Nowhere in Challenger can the term "cache server" as used by the Examiner during the examination procedure be found. Nor does Challenger provide any definition of the term "cache" that is inconsistent with what this term is ordinarily understood to comprise.

In contrast, the content personalization system of the present invention comprises a client equipment unit such as a personal computer (PC) capable of communicating with a content providing server such as a web server for providing content. It also comprises a data manipulation server (proxy server) disposed in-line between the client equipment unit and the content providing server but remote from the client

equipment unit. The data manipulation server is coupled to a data store arranged to store personal data relating to a user of the client equipment unit.

The test of anticipation under 35 U.S.C. 102 is a stringent one and the prior art reference must clearly teach each and every limitation of the allegedly anticipated claim.

Challenger does not teach the feature of claim 1, for example, of the present application of *"a data manipulation server disposed in-line between the client equipment unit and the content providing server"*. In fact, Challenger does not teach *"a data manipulation server"*. A cache is not a server. Also, it cannot be claimed that cache 106 of Challenger somehow comprises the data manipulation server and data store arrangement of claim 1 of the present application. The following definitions retrieved from the internet of what is generally considered to constitute a cache and what constitutes a server may help in understanding this distinction:

**Cache:**

- A memory area where frequently accessed data can be stored for rapid access [www.orafaq.com/glossary/faqglosc.htm](http://www.orafaq.com/glossary/faqglosc.htm)
- Memory that holds copies of recently accessed data. Several Web browsers keep recently viewed pages in a cache so users can return to them quickly without suffering network delays [www.tamu.edu/ode/glossary.html](http://www.tamu.edu/ode/glossary.html)
- is an area on the hard disc of a computer where web pages and page elements (graphics etc) are stored when a page is downloaded from the Internet. If a page is revisited and the page, or elements of the page, are still held in cache then the computer will use the cache version to save time rather than download afresh. It also allows previously visited pages to be viewed offline [www.smallbizonline.co.uk/glossary\\_of\\_internet\\_terms.php](http://www.smallbizonline.co.uk/glossary_of_internet_terms.php)
- The location where visited web pages are stored, enabling them to be displayed more rapidly at the next visit. Each browser has its own cache on the hard drive [webmaster.lycos.co.uk/glossary/C/](http://webmaster.lycos.co.uk/glossary/C/)
- A special type of computer memory that operates at very high speed. It is similar to RAM but is much faster. It is usually used by the CPU as a storage



place for processing instructions. When the computer is shut down any information held in the cache memory is lost. An area set aside in RAM or on a disk to save frequently or recently used data  
[www.visionsofadonai.com/onrampglossary.html](http://www.visionsofadonai.com/onrampglossary.html)

- a large bank of random access memory used for temporary storage of information [www.sunrise.uk.com/glossary.html](http://www.sunrise.uk.com/glossary.html)
- An area of high speed memory set aside to store frequently accessed data. When data is accessed, a copy (and its address in memory) is stored in cache memory. The next time the CPU looks for information, it first checks the cache. If the data is there (called a hit), it can retrieve it from the much faster cache memory. If it is not, then it accesses system memory, puts a copy of the new data in the cache, and processes the information  
[www.pccomputernotes.com/pcterns/glossaryc.htm](http://www.pccomputernotes.com/pcterns/glossaryc.htm)
- Specialized RAM used specifically to optimize data transfers between system components with different performance capabilities  
[www.harddiskrecovery.net/computer\\_glossary.html](http://www.harddiskrecovery.net/computer_glossary.html)
- A cache is temporary memory designed to speed up access to resources. Previously accessed web pages are stored on the disk of the personal computer running the browser. When a user is flipping back and forth between previously accessed pages, the browser retrieves the pages from the local disk rather than from the remote server. Use of cache speeds up retrieval, reduces network traffic and decreases load on the server  
[www.liv.ac.uk/webteam/glossary/](http://www.liv.ac.uk/webteam/glossary/)

### **Server:**

- A computer that delivers information and software to other computers linked by a network [www.utas.edu.au/library/etutor/main/webzglos.htm](http://www.utas.edu.au/library/etutor/main/webzglos.htm)
- A process that runs on a host that relays information to a client upon the client sending it a request. Servers come in many forms: application servers, web servers, database servers, and so forth. All IP-based servers can be load balanced. See Web Server [www.loadbalancing.net/glossary.html](http://www.loadbalancing.net/glossary.html)
- A server is a computer that handles requests for data, email, file transfers, and other network services from other computers (i.e., clients)  
[www.usg.edu/galileo/skills/ollc\\_glossary.html](http://www.usg.edu/galileo/skills/ollc_glossary.html)
- A file server and/or a computer that processes requests for HTML and other documents that are components of web pages  
[investigate.conservation.org/expeditions/guyana/glossary.htm](http://investigate.conservation.org/expeditions/guyana/glossary.htm)

- 1) In general, a server is a computer program that provides services to other computer programs in the same or other computers. 2) The computer that a server program runs in is also frequently referred to as a server (though it may contain a number of server and client programs). 3) In the client/server programming model, a server is a program that awaits and fulfils requests from client programs in the same or other computers  
[www.planetech.co.uk/glossary.htm](http://www.planetech.co.uk/glossary.htm)
- Can refer to the machine that stores files of many users and programs that can be shared, or to the program that allows communication with a browser  
[www.sir.arizona.edu/resources/glossary.html](http://www.sir.arizona.edu/resources/glossary.html)
- A computer or software providing services to remote client machines or applications, such as supplying page contents (texts or other resources) or returning query results  
[webmaster.lycos.co.uk/glossary/S/](http://webmaster.lycos.co.uk/glossary/S/)
- In general, a server is a computer program that provides services to other computer programs in the same or other computers  
[www.pacific.net.au/customer\\_support/glossary/](http://www.pacific.net.au/customer_support/glossary/)
- A powerful computer that holds data to be shared over a network. Can be used to store critical data for retrieval. A server also acts the communications gateway between many computers connected to it, responding to requests for information from client computers. On the Internet, all Web pages are held on servers. This includes search engine and directory data accessible from the Internet. Typically, the computers running the server software are dedicated to that purpose  
[www.botics.com/marketing/seo\\_glossary.htm](http://www.botics.com/marketing/seo_glossary.htm)
- A computer, or a software package, that provides a specific kind of service to client software running on other computers  
[www.qeiicc.co.uk/organising\\_an\\_event/it/glossary](http://www.qeiicc.co.uk/organising_an_event/it/glossary)
- Computer hardware and software that is attached to a network and which automatically stores, processes and transmits data or information that is generally accessed by many people using client programs. A standard language is used to define this client-server interaction  
[www.wda.org/Public/help/glossary.htm](http://www.wda.org/Public/help/glossary.htm)

Reference is made to Challenger, column 6, lines 47 to 51 where it is described that the cache 106 may decide not to store customized information which takes up too much space. Also, when the cache 106 becomes full, the cache 106 may choose to evict (delete) customized information which takes up significant space to make room for new data. This part of Challenger confirms that the cache 106 operates in a

manner entirely consistent with the general understanding of what constitutes a cache in that it acts to temporarily store data (information). The fact that a cache may have some processing ability as in the case of cache 106 taught by Challenger is not inconsistent with the primary function of such a device to temporarily store data. Thus, the cache 106 of Challenger is not a data manipulation server as required by at least claim 1 of the present application.

In the present application, the data store 22 comprising, for example, a disk drive coupled to the data manipulation server 22 (figure 2) is arranged to store personal data relating to a user of the client equipment unit 2 (PC). A skilled person will readily understand from the context of the present application and the nature of the data stored by this device, namely personal data relating to users, that the storage device 22 is a persistent storage device that is designed to permanently (unless updated) store data even when powered off in contrast to a cache which temporarily stores data when powered on and loses all such data when powered off. Whilst at one occurrence (page 11, lines 6/7) in the specification of the present application the disk drive comprising the data storage device 22 is said to be acting as a cache, a skilled person will readily understand that the storage device is a persistent storage device and that this single use of the term "cache" is a loose reference to the act of storing data.

**Since Challenger does not teach "*a data manipulation server disposed in-line between the client equipment unit and the content providing server*" nor even "*a data manipulation server*", then on this ground alone, Challenger cannot be said to anticipate any of claims 1, 4 to 10, 12, 15 to 21, 23, 27 to 32, 55 and 58 to 85.**

Notwithstanding the foregoing, Challenger relates to a method and system for caching temporarily stored customized information. The objective of caching objects is to incur "significantly less overhead than recalculating the object or fetching the

object from a remote location” (col 1, lines 17-19, also see col 5, lines 40-46). According to Challenger, “conventional caches store the actual objects to be returned to clients. In Challenger the cache 106 stores customizable templates (CTs), which are objects whose content has only been partially specified.” (col 5, lines 49-52).

It will be appreciated that applicants’ invention is not directed to improved caching systems but to personalization of content provided to a user through the use of a data manipulation server, disposed in-line between the content providing server and a client equipment unit, which server is provided with persistently stored personal data relating to the user. The advantage of the present invention is that the user may obtain personalized content from a number of different content providing servers without having to continuously and separately provide personal data to each new content providing server with which the user wishes to interact (whether such personal data is to be stored at the content providing server or in the form of a cookie set at the client equipment unit by the content providing server). Thus, a single set of personal data relating to the user is persistently stored in respect of a number of content providing servers resulting in increased security of the data and improved control, in particular allowing the user to update the personal data centrally thereby obviating the need to update the numerous content providing servers or the cookies that they set. As a result, the user will experience a more consistent personalization of content.

Challenger does not address the same objectives as the present invention and does not teach the combination of features providing the solution as claimed in the present invention.

During the examination procedure, it has been asserted that “Challenger teaches of a client-server system where cache 106 stores customized information relating to the client 102”. Cache 106 does indeed store customized information which may relate

to the client 102 in the sense that the client 102 may have requested the customized information. However, the customized information is clearly not personal data relating to the user of the client equipment unit as presently claimed. Rather, the customized information relating to the client 102 is content to be provided to the user. There is a clear distinction between the personalized content which is to be provided and the persistently stored personal data relating to the user which enables such personalization.

**Therefore, since Challenger does not teach storing personal data relating to a user in a data store coupled to the data manipulation server, then on this ground alone, Challenger cannot be said to anticipate any of claims 1, 4 to 10, 12, 15 to 21, 23, 27 to 32, 55 and 58 to 85.**

Furthermore, it has been argued that Challenger discloses “the data manipulation server intercepting a request message for obtaining the content, the request message being transmitted from the client equipment unit and addressed to the content providing server”. Various references in Challenger were cited to support this contention – section 5 of the final Office Action mailed July 27, 2005. Firstly, as demonstrated above, Challenger does not teach “a data manipulation server”. Also, there is no indication in the specific references relied on, nor for that matter anywhere in Challenger, that teaches or suggests that the cache 106 intercepts any request messages addressed to the content providing server. It is noted that this latter issue was not addressed by the Examiner in the final Office Action mailed July 27, 2005. Rather, in Challenger, request messages are addressed to the cache 106 (see figure 5, block 502 and column 7, lines 32 to 37 where it states “a request for cached data is received by the cache 106 (step 502) conventional methods (e.g. look up in a cache directory) may be used to determine if the request then can be satisfied from the cache 106”).

**Thus, it cannot be said that Challenger teaches the data manipulation server intercepting a request message addressed to the content providing server as presently claimed. Therefore, on this ground alone, Challenger cannot be said to anticipate any of claims 1, 4 to 10, 12, 15 to 21, 55 and 58 to 85.**

During the examination procedure, it has been asserted that the personal data relating to the user is static data. Various passages from Challenger have been quoted to support this contention – section 6 of the final Office Action mailed July 27, 2005. The Examiner appears to have confused the use of static rules (RIBs) with personal data relating to the user. Furthermore, the Examiner has asserted that the static data is obtained from the user and references the same passages in Challenger. Again, the Examiner appears to have confused the static rules used in Challenger with personal data relating to the user. The static rules of Challenger are not obtained from the user.

It has also been asserted that Challenger discloses that the data relating to the user is dynamic data and cites once again the same references in Challenger. Again, the Examiner appears to be confusing the disclosure in Challenger of dynamic rules with the personal data relating to the user of the present invention.

It has further been asserted that Challenger teaches that the dynamic data is obtained from an access or service provider associated with supporting communication between the client equipment unit and the content providing server. The Examiner again cites the very same passages of Challenger. The applicants have carefully reviewed the references but can find no teaching of this feature whatsoever.

It has further been asserted that Challenger teaches that the data manipulation server is arranged to modify the data communicated between the client equipment and the content providing server in dependence on a selected subset of the data

relating to a user – section 7 of the final Office Action mailed July 27, 2005. The Examiner also asserts that Challenger teaches that the data manipulation server is arranged to request the user of client equipment to select the subset in response to intercepting the request message and that Challenger teaches the data manipulation server is arranged to determine the subset independence on at least one rule of a user defined rule set. Again, the Examiner has cited the same passages as referenced above. The applicants have carefully reviewed these passages and can find no teaching of the features that the Examiner asserts are taught by Challenger. Also, as demonstrated above, Challenger does not teach a data manipulation server.

It has also been asserted that Challenger teaches the data manipulation server is operated by an access or service provider associated with supporting communications between the client equipment unit and the content providing server section 8 of the final Office Action mailed July 27, 2005. Again, the Examiner cites the same passages referenced above. Again, the applicant has carefully reviewed these passages and can find no teaching of this feature.

**For the reasons explained in the foregoing, Challenger does not teach many of the claims limitations of the claims of the present application and thus does not anticipate such claims. In particular, Challenger does not teach “a data manipulation server” as required by all the claims of this application which are therefore not anticipated by the disclosure of Challenger.**

#### Ground 2:

In *ex parte* examination of patent applications, the Patent and Trademark Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed

invention is always upon the Patent and Trademark Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent and Trademark Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985). A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142.

Neither Cohen nor Challenger, either taken singly or in combination teaches the feature of “a data manipulation server disposed in-line between the client equipment unit and the content providing server, the data manipulation server being remote from the client equipment unit, the data manipulation server being coupled to a data store arranged to store personal data relating to a user of the client equipment unit; wherein the data manipulation server is adapted to modify data communicated between the client equipment unit and the content providing server in dependence



*on the data relating to the user*". Generally speaking, both Challenger and Cohen relate to methods and systems for caching information. In contrast, the Applicants' invention is directed to personalization of content. There is a very significant distinction between these. The objective of caching is to improve efficiency in providing content (e.g. to reduce overhead and latency), whereas the objective of content personalization is to provide a richer and more relevant user experience. Both Challenger and Cohen are not inappropriate references. Consequently, the combination of Cohen and Challenger cannot teach all of the claims limitations of claims 2, 3, 11, 13, 14, 22, 33, 56 and 57.

Further, Cohen discloses a method and apparatus for improving the efficiency of a cache. In particular, Cohen discloses that when a "proxy server sends a resource request [to a resource server] ... it also sends a proxy filter with the request. The proxy filter identifies certain criteria of interest to the proxy server with regard to any additional resources which might be in the same volume as the requested resource. ... A resource request response is then generated and sent back to the proxy server. Added to that response is information about additional resources selected from the volume using the proxy filter criteria. The proxy server upon receipt of this information from the resource server ... can then forward the appropriate requested resource to the requesting client and can update its proxy cache to indicate the extent to which already cached resources are valid or invalid. It can also make a determination whether to pre-fetch any of the additional resources identified in the appended additional information." (column 4, lines 4 to25).

It is clear from this passage that the proxy filter sent with the request is not used to personalize the content requested by the requesting client, but rather to enable the proxy cache to determine to what extent its already cached resources are valid or invalid and possibly to pre-fetch additional resources which may or may not be requested by the user in future. Thus, it cannot be said that the request message is

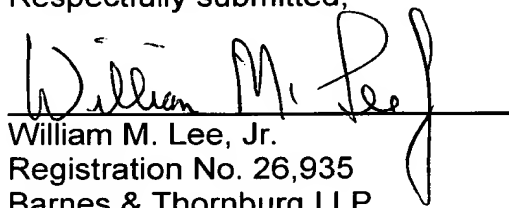
modified thereby to personalize the content to be obtained by the client equipment unit as presently claimed in claims 2, 13 and 56.

Consequently, claims 2, 3, 11, 13, 14, 22, 33, 56 and 57 are patentably distinct over the combination of Challenger and Cohen.

Reversal of the Examiner is therefore clearly in order and is solicited.

December 13, 2005

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line. The signature is stylized with a large, looped "L" and a long, sweeping "e".

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## Claims Appendix

1. A web content personalisation system for a communications network comprising:

a client equipment unit capable of communicating with a content providing server for providing content;

a data manipulation server disposed in-line between the client equipment unit and the content providing server, the data manipulation server being remote from the client equipment unit, the data manipulation server being coupled to a data store arranged to store personal data relating to a user of the client equipment unit; wherein

the data manipulation server is adapted to modify data communicated between the client equipment unit and the content providing server in dependence on the data relating to the user in response to the personal data manipulation server intercepting a request message for obtaining the content, the request message being transmitted from the client equipment unit and addressed to the content providing server.

2. A system as claimed in Claim 1, wherein the modified data is the request message which is modified thereby to personalise the content to be obtained by the client equipment.

3. A system as claimed in Claim 2, wherein the request message is a Hyper Text Transfer Protocol (HTTP) request message.

4. A system as claimed in Claim 1, wherein the modified data is data providing the content.

5. A system as claimed in Claim 4, wherein the data providing the content is Hyper Text Mark-up Language (HTML) data.

6. A system as claimed in Claim 1, wherein the personal data relating to the user is static data.
7. A system as claimed in Claim 6, wherein the static data is obtained from the user.
8. A system as claimed in Claim 6, wherein the static data is obtained from a content provider associated with the content.
9. A system as claimed in Claim 1, wherein the personal data relating to the user is dynamic data.
10. A system as claimed in Claim 9, wherein the dynamic data is obtained from an access or service provider associated with supporting communications between the client equipment unit and the content providing server.
11. A system as claimed in Claim 1, wherein the data manipulation server is a proxy server.
12. A data manipulation server apparatus for coupling in-line between a client equipment unit and a content providing server, the apparatus comprising:
  - an interface for accessing a data store arranged to store personal data relating to a user of the client equipment unit; and
  - a data manipulation engine arranged to modify data communicated between the client equipment unit and the content providing server in dependence on the personal data relating to the user in response to the data manipulation server intercepting a request message for obtaining content, the request message being transmitted from the client equipment unit and addressed to the content providing server.

13. An apparatus as claimed in Claim 12, wherein the modified data is the request message which is modified thereby to personalise the content to be obtained by the client equipment.
14. An apparatus as claimed in Claim 13, wherein the request message is a Hyper Text Transfer Protocol (HTTP) request message.
15. An apparatus as claimed in Claim 12, wherein the modified data is data providing the content.
16. An apparatus as claimed in Claim 15, wherein the data providing the content is Hyper Text Mark-up Language (HTML) data.
17. An apparatus as claimed in Claim 12, wherein the personal data relating to the user is static data.
18. An apparatus as claimed in Claim 17, wherein the static data is obtained from the user.
19. An apparatus as claimed in Claim 17, wherein the static data is obtained from a content provider associated with the content.
20. An apparatus as claimed in Claim 12, wherein the personal data relating to the user is dynamic data.
21. An apparatus as claimed in Claim 20, wherein the dynamic data is obtained from an access or service provider associated with supporting communications between the client equipment unit and the content providing server.

22. An apparatus as claimed in Claim 12, wherein the data manipulation server is a proxy server.

23. A content providing server apparatus comprising:

a transceiver and a processor coupled to a data store arranged to store content data, the transceiver and the processor being arranged to retrieve content data from the data store and transmit the content data to a client equipment unit in response to a the client equipment unit transmitting to the content providing server a request message for obtaining the content; wherein

the content data comprises a user-related attribute for replacement by a data manipulation server remote from the client equipment unit and disposed in-line between the content providing server and the client equipment unit, the replacement being performed in dependence on personal data accessed by the data manipulation server and relating to a user of the client equipment unit.

24 - 26. (Canceled)

27. An apparatus as claimed in Claim 26, wherein the content data is Hyper Text Mark-up Language (HTML) data.

28. An apparatus as claimed in Claim 23, wherein the personal data relating to the user is static data.

29. An apparatus as claimed in Claim 28, wherein the static data is obtained from the user.

30. An apparatus as claimed in Claim 28, wherein the static data is obtained from a content provider associated with the content.

31. An apparatus as claimed in Claim 23, wherein the personal data relating to the user is dynamic data.

32. An apparatus as claimed in Claim 31, wherein the dynamic data is obtained from an access or service provider associated with supporting communications between the client equipment unit and the content providing server.

33. An apparatus as claimed in Claim 23, wherein the data manipulation server is a proxy server.

34 - 54. (Canceled)

55. A method of personalising content communicated to a client equipment unit by a content providing server, the method comprising the steps of:

intercepting at a data manipulation server remote from the client equipment unit and disposed in-line between the content providing server and the client equipment unit, a request message for obtaining the content, the request message being transmitted from the client equipment unit and addressed to the content providing server;

in response to the interception, retrieving from a data store personal data relating to a user of the client equipment unit; and

modifying data communicated between the client equipment unit and the content providing server in dependence on the retrieved personal data relating to the user.

56. A method as claimed in Claim 55, wherein the modified data is the request message which is modified thereby to personalise the content to be obtained by the equipment unit.

57. A method as claimed in Claim 56, wherein the request message is a Hyper Text Transfer Protocol (HTTP) request message.
58. A method as claimed in Claim 55, wherein the modified data is data providing the content.
59. A method as claimed in Claim 58, wherein the data providing the content is Hyper Text Mark-up Language (HTML) data.
60. A method as claimed in Claim 55, wherein the personal data relating to the user is static data.
61. A method as claimed in Claim 60, further comprising the step of:  
obtaining the static data from the user.
62. A method as claimed in Claim 60, further comprising the step of:  
obtaining the static data is from a content provider associated with the content.
63. A method as claimed in Claim 55, wherein the personal data relating to the user is dynamic data.
64. A method as claimed in Claim 63, further comprising the step of:  
obtaining the dynamic data from an access or service provider associated with supporting communications between the client equipment unit and the content providing server.
65. Computer executable software code stored on a computer readable medium, the code being for personalising content communicated to a client equipment unit by a content providing server, the code comprising:



code to intercept at a data manipulation server, disposed in-line between the client equipment unit and content providing server and remote from the client equipment unit, a request message for obtaining the content, the request message being transmitted from the client equipment unit and addressed to the content providing server;

code to retrieve personal data relating to a user of the client equipment unit in response to the interception;

code to modify data communicated between the client equipment unit and the content providing server in dependence on the retrieved personal data relating to the user.

66. A programmed computer for personalising content communicated to a client equipment unit from a content providing server, the computer comprising:

a memory having at least one region for storing computer executable program code, and

a processor for executing the program code stored in the memory, wherein the program code comprises:

code to intercept at a data manipulation server, disposed in-line between the client equipment unit and content providing server and remote from the client equipment unit, a request message for obtaining the content, the request message being transmitted from the client equipment unit and addressed to the content providing server;

code to retrieve personal data relating to a user of the client equipment unit in response to the interception;

code to modify data communicated between the client equipment unit and the content providing server in dependence on the retrieved personal data relating to the user.

67. A computer readable medium having computer executable code stored thereon, the code being for personalising content communicated to a client equipment unit from a content providing server, the code comprising:

code to intercept at a data manipulation server, disposed in-line between the client equipment unit and content providing server and remote from the client equipment unit, a request message for obtaining the content, the request message being transmitted from the client equipment unit and addressed to the content providing server;

code to retrieve personal data relating to a user of the client equipment unit in response to the interception;

code to modify data communicated between the client equipment unit and the content providing server in dependence on the retrieved personal data relating to the user.

68. A content personalisation system according to Claim 1, wherein the data manipulation server is arranged to modify the data communicated between the client equipment and the content providing server in dependence on a selected subset of the personal data relating to a user stored in the data store.

69. A content personalisation system according to Claim 68, wherein the data manipulation server is arranged to request the user of the client equipment unit to select the subset in response to intercepting the request message.

70. A content personalisation system according to Claim 68, wherein the data manipulation server is arranged to determine the subset in dependence on at least one rule of a user defined rule set, the at least one rule applying to the content providing server.

71. A content personalisation system according to Claim 1, wherein the data manipulation server is arranged selectively to modify the data communicated

between the client equipment and the content providing server in dependence on the data manipulation server detecting that the content providing server has a subscription with the data manipulation server.

72. A content personalisation system according to Claim 1, wherein the data manipulation server is operated by an access or service provider associated with supporting communications between the client equipment unit and the content providing server.

73. A data manipulation server apparatus according to Claim 12, wherein the data manipulation server is arranged to modify the data communicated between the client equipment and the content providing server in dependence on a selected subset of the personal data relating to a user stored in the data store.

74. A data manipulation server apparatus according to Claim 73, wherein the data manipulation server is arranged to request the user of the client equipment unit to select the subset in response to intercepting the request message.

75. A data manipulation server apparatus according to Claim 73, wherein the data manipulation server is arranged to determine the subset in dependence on at least one rule of a user defined rule set, the at least one rule applying to the content providing server.

76. A data manipulation server apparatus according to Claim 12, wherein the data manipulation server is arranged selectively to modify the data communicated between the client equipment and the content providing server in dependence on the data manipulation server detecting that the content providing server has a subscription with the data manipulation server.

77. A data manipulation server apparatus according to Claim 12, wherein the data manipulation server apparatus is operated by an access or service provider associated with supporting communications between the client equipment unit and the content providing server.
78. A method of personalising content according to Claim 55, wherein the retrieved personal data relating to the user is a selected subset of personal data relating to the user stored in the data store.
79. A method of personalising content according to Claim 78, comprising the step of:  
requesting the user of the client equipment unit to select the subset in response to the interception.
80. A method of personalising content according to Claim 78, comprising the step of:  
determining the subset in dependence on at least one rule of a user defined rule set, the at least one rule applying to the content providing server.
81. A method of personalising content according to Claim 55, comprising the step of:  
selectively modifying the data communicated between the client equipment and the content providing server in dependence on detecting that the content providing server has a subscription.
82. A method of personalising content according to Claim 55, wherein the method is performed by an access or service provider associated with supporting communications between the client equipment unit and the content providing server.
83. A content personalisation system for a communications network comprising:

a client equipment unit capable of communicating with a content providing server for providing content;

a data manipulation server disposed in-line between the client equipment unit and the content providing server and remote from the client equipment unit, the data manipulation server being coupled to a data store arranged to store personal data relating to a user of the client equipment unit; wherein

the data manipulation server is adapted to intercept and modify content data communicated from the content providing server to the client equipment unit, the content data being communicated in response to a request message being transmitted from the client equipment unit to the content providing server for obtaining the content, the modification being performed in dependence on the personal data relating to the user.

84. A data manipulation server apparatus for disposal in-line between a client equipment unit and a content providing server and remote from the client equipment unit, the apparatus comprising:

a data store arranged to store personal data relating to a user of the client equipment unit; and

a data manipulation engine arranged to intercept and modify content data communicated from the content providing server to the client equipment unit, the content data being communicated in response to a request message being transmitted from the client equipment unit to the content providing server for obtaining the content, the modification being performed in dependence on the personal data relating to the user.

85. A method of personalising content communicated to a client equipment unit by a content providing server, the method comprising the steps of:

intercepting at a data manipulation server, disposed in-line between the client equipment unit and content providing server and remote from the client equipment unit, content data communicated from the content providing server to the client

equipment unit, the content data being communicated in response to a request message being transmitted from the client equipment unit to the content providing server for obtaining the content;

in response to the interception, retrieving personal data relating to a user of the client equipment unit; and

modifying the data communicated between the client equipment unit and the content providing server in dependence on the retrieved personal data relating to the user.

**Evidence Appendix and Related Proceedings Appendix**

There are no such appendices.